

10 a second flat member having a predetermined shape, first and second opposed flat
surfaces, and a second predetermined thickness, and having a tab with an outer partially curved
contour that substantially matches the inner contour of the cavity in the first flat member so that
the tab fits within the cavity, which tab has a thickness that substantially matches the depth of
the cavity formed in the first flat member, and wherein the first and second flat members, when
joined, lie in the same plane and are disposed at a predetermined noncollinear angle with respect
15 to each other.

6. A joint system for producing a flat, coplanar, frame structure, comprising:
a first flat member having a predetermined shape, first and second opposed flat surfaces,
and a first predetermined thickness which first member comprises a cavity having a
predetermined inner contour, which cavity is exposed at the first flat surface, that is exposed
5 along a portion of an edge of the first flat member, which cavity has a depth that extends a
predetermined distance below the first flat surface; and
a second flat member having a predetermined shape, first and second opposed flat
surfaces, and a second predetermined thickness, that comprises a tab with an outer contour that
substantially matches the inner contour of the cavity and that fits within the cavity, and wherein
10 the first and second flat members, when joined, lie in the same plane and are disposed at a
predetermined noncollinear angle with respect to each other.

12. A joint system for producing a flat, coplanar, frame structure, comprising:
a first flat member having a predetermined shape, first and second opposed flat surfaces,
and a first predetermined thickness which first flat member comprises a cavity having a
predetermined inner partially curved contour, which cavity is exposed at the first flat surface,
5 that is exposed along a portion of an edge of the first flat member, which cavity has a depth that
extends a predetermined distance below the first flat surface; and
a second flat member having a predetermined shape, first and second opposed flat
surfaces, and a second predetermined thickness, that comprises a tab with an outer partially
curved contour that substantially matches the inner partially curved contour of the cavity and
10 that fits within the cavity, and wherein the first and second flat members, when joined, lie in the
same plane and are disposed at a predetermined noncollinear angle with respect to each other.

REMARKS

Regarding the status of the present application, Claims 1, 6 and 12 have been amended,
and Claims 1-17 are pending in this application. Reconsideration of this application is
respectfully requested. It is respectfully submitted that the present response does not require
further searching on the part of the Examiner. It is also respectfully submitted that this
response places this application in condition for allowance, or in any event, places it in better
condition for consideration on appeal.

The disclosure was objected to because of incorrect wording at page 1 line 11. The specification has been amended to correct this error. Withdrawal of the Examiner's objection is respectfully requested.

The Examiner indicated that the information disclosure statement filed 12 November 2002, fails to comply with 37 CFR 1.97(c) because it lacks the fee set forth in 37 CFR 1.17(p). Enclosed is a cheque in the amount of \$180 to cover the costs of the fee.

Claim 1 was objected to because of an informality noted by the Examiner. Claim 1 has been amended to recite --which tab has a thickness--. In view of this amendment, withdrawal of the Examiner's rejection is respectfully requested.

Withdrawal of the 35 U.S.C. § 112, second paragraph, rejections made by the Examiner is appreciated.

Claims 1-17 were rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,114,265 issued to Grisley. The Examiner cited column 4 lines 11-14 and figures 5 and 8 of the Grisley patent as disclosing the present invention. It is respectfully submitted that amended Claims 1, 6 and 10 clearly distinguish over the express teachings of the Grisley patent.

The Grisley patent shows with regard to figures 5 and 8 that the two joined members lie in the same plane (see the dotted line extension 13 in figure 5) and are collinear with each other. [Emphasis added] Each of the pending independent Claims have been amended to recite that the first and second flat members lie in the same plane and are disposed at a predetermined noncollinear angle with respect to each other. It is respectfully submitted that the Grisley patent does not disclose or suggest this structure, and certainly not without extending its teachings beyond its scope using hindsight reconstruction.

It is respectfully submitted that the Grisley patent does not disclose or suggest "wherein the first and second flat members, when joined, lie in the same plane and are disposed at a predetermined noncollinear angle with respect to each other". The Grisley patent discloses or suggests right-angled and collinear joints and articles constructed using such joints which does not produce a frame structure or a flat, coplanar, frame structure having flat members, that when joined, lie in the same plane and are disposed at a predetermined noncollinear angle with respect to each other. It is respectfully submitted that no frame structures whose members lie in the same plane and are disposed at a predetermined noncollinear angle with respect to each other are disclosed or suggested in the Grisley patent.

Therefore, it is respectfully submitted that Claim 1 is not anticipated by, nor is it obvious in view of, the Grisley patent, and certainly not without the use of hindsight reconstruction. Accordingly, withdrawal of the Examiner's rejection and allowance of Claim 1 are respectfully requested.

Independent Claims 6 and 12 contain patentable limitations substantially as recited in Claim 1. Claims 6 and 12 are therefore considered patentable over the Grisley patent for the same reasons argued with regard to Claim 1.

Therefore, it is respectfully submitted that Claims 6 and 12 are not anticipated by, nor are they obvious in view of, the Grisley patent. Accordingly, withdrawal of the Examiner's rejection and allowance of Claims 6 and 12 are respectfully requested.

It is again respectfully submitted that any characterization of the teachings of the Grisley patent as disclosing or suggesting that the joint may be used to produce a flat structure whose members lie in the same plane and are disposed at a predetermined noncollinear angle with respect to each other would be a distortion of the express teachings of the Grisley patent and would amount to hindsight reconstruction on the part of the Examiner in order to reject the present invention. The only teaching of a joint system having flat members that lie in the same plane so as to form a frame structure whose members lie in the same plane and are disposed at a predetermined noncollinear angle with respect to each other, is only found in the present application.

Dependent Claims 2-5, 7-11 and 13-17 are considered patentable based upon their dependence from allowable Claims 1, 6 and 12. Accordingly, withdrawal of the Examiner's rejection and allowance of Claims 2-5, 7-11 and 13-17 is respectfully requested.

Attached hereto is a marked-up version of the changes made to application by the present amendment. The attached page is captioned "Version with markings to show changes made."

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure to the extent indicated by the Examiner.

In view of the above, it is respectfully submitted that all pending claims are not anticipated by, nor are they obvious in view of the cited reference, without the use of hindsight reconstruction, and are therefore patentable. Therefore, it is respectfully submitted that the present application is in condition for allowance. Accordingly, reconsideration of this application and allowance thereof are earnestly solicited. It is again respectfully submitted that the present response does not require further searching by the Examiner, and places this application in condition for allowance, or in any event, places it in better condition for consideration on appeal.

Respectfully submitted,



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VERSION WITH MARKINGS TO SHOW CHANGES MADE

IN THE SPECIFICATION

Please amend the paragraph at page 1, line 5 to read as indicated.

In carpentry, a joint is formed at the junction of two or more members of a framed structure. The object of a joint is to fix two members together so that the joint has the greatest possible mechanical strength and is as unobtrusive as possible. Though there are many joints in use, they fall into a few basic groups, and which are variations or elaborations of simple concepts. In general, practically all joints are based on handwork, and with few exceptions most machine-made joints have the traditional patterns. Most joints rely on [involve] mechanical fittings and glue for their strength.

IN THE CLAIMS

Please amend the following Claims as indicated.

1. (Amended) A joint system for producing a flat, coplanar, frame structure, comprising:

a first flat member having a predetermined shape, first and second opposed flat surfaces, and a first predetermined thickness;

5 a cavity formed in the first flat member that has a predetermined inner partially curved contour, which cavity is exposed at the first flat surface of the first flat member and along a portion of an edge of the first flat member, which cavity has a depth that extends a predetermined distance below the first flat surface, and wherein the depth of the cavity is a predetermined portion of the thickness of the first flat member; and

10 a second flat member having a predetermined shape, first and second opposed flat surfaces, and a second predetermined thickness, and having a tab with an outer partially curved contour that substantially matches the inner contour of the cavity in the first flat member so that the tab fits within the cavity, which tab has a thickness that substantially matches the depth of the cavity formed in the first flat member, and wherein the first and second flat members, when
15 joined, lie in the same plane and are disposed at a predetermined noncollinear angle with respect to each other.

6. (Amended) A joint system for producing a flat, coplanar, frame structure, comprising:

a first flat member having a predetermined shape, first and second opposed flat surfaces, and a first predetermined thickness [that] which first member comprises a cavity having a
5 predetermined inner contour, [that] which cavity is exposed at the first flat surface, that is

exposed along a portion of an edge of the first flat member, [and that] which cavity has a depth that extends a predetermined distance below the first flat surface; and

10 a second flat member having a predetermined shape, first and second opposed flat surfaces, and a second predetermined thickness, that comprises a tab with an outer contour that substantially matches the inner contour of the cavity and that fits within the cavity, and wherein the first and second flat members, when joined, lie in the same plane and are disposed at a predetermined noncollinear angle with respect to each other.

12. (Amended) A joint system for producing a flat, coplanar, frame structure, comprising:

5 a first flat member having a predetermined shape, first and second opposed flat surfaces, and a first predetermined thickness [that] which first flat member comprises a cavity having a predetermined inner partially curved contour, [that] which cavity is exposed at the first flat surface, that is exposed along a portion of an edge of the first flat member, [and that] which cavity has a depth that extends a predetermined distance below the first flat surface; and

10 a second flat member having a predetermined shape, first and second opposed flat surfaces, and a second predetermined thickness, that comprises a tab with an outer partially curved contour that substantially matches the inner partially curved contour of the cavity and that fits within the cavity, and wherein the first and second flat members, when joined, lie in the same plane and are disposed at a predetermined noncollinear angle with respect to each other.